<u>**IN THE CLAIMS**</u>:

Please amend claims 2-10, 13-17, 20-21, and 23-24 and cancel claims 19 and 22, without prejudice or disclaimer, as follows.

1.   (Previously Presented) A method for reserving resources for at least one flow of packets on a Multi-Protocol Label Switching (MPLS) based path in a network, the method comprising:

identifying at least one flow of packets from a connection to a destination, wherein at least one flow of packets is associated with a required resource for forwarding each packet in at least one flow of packets towards the destination over the network;

employing a first type of message to establish a Label Switching Path (LSP) in the network for at least one flow from the connection towards the destination, wherein the LSP is established from an ingress router to an egress router in the network;

employing a second type of message to reserve the required resource at each router along the LSP for at least one flow of packets from the connection; and

when a new resource is required for at least one flow of packets from the connection, employing the second type of message to reserve the newly required resource at each router that employs an enhanced MPLS (EMPLS) protocol and is disposed along the existing LSP, wherein a new path is established by the first type of

message for that portion of the existing LSP that includes a router that employs an MPLS protocol, instead of a router that employs the EMPLS protocol.

2.   (Currently Amended) The method of ~~Claim~~ claim 1, further comprising:

a set of labels, wherein each label corresponds to a router that forwards it towards the next router along the LSP, wherein the label includes an extra bit (EXP) field, and wherein the EXP field includes an EMPLS indicator in each label that is forwarded by each router that employs the EMPLS protocol.

3.   (Currently Amended) The method of ~~Claim~~ claim 1, wherein the employing of the second type of message further comprises employing the same label with the second type of message as the first type of message to ensure that the message is forwarded to each router along the LSP.

4.   (Currently Amended) The method of ~~Claim~~ claim 1, wherein the identifying of the at least one flow of packets further comprising determining that the packets in a flow have the same forwarding equivalence class (FEC).

5.   (Currently Amended) The method of ~~Claim~~ claim 1, wherein the employing of the second type of message further comprising when at least two flows of packets from the connection have the same forwarding equivalence class (FEC), employing an aggregated

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Resource ReserVation Protocol (RSVP) message to reserve resources along the LSP for each flow of packets with the same FEC.

6.   (Currently Amended) The method of ~~Claim~~ claim 1, wherein when the new resource is required for the at least one flow of packets from the connection, the method further comprising:

employing the first type of message to set up the new path for that portion of the existing LSP that includes at least one router that employs the MPLS protocol; and

establishing a new LSP that includes the new path in combination with another portion of the previously existing LSP that includes each router that employs the EMPLS protocol and is disposed along the previously existing LSP.

7.   (Currently Amended) The method of ~~Claim~~ claim 1, further comprising tearing down the existing LSP when at least one flow of packets from the connection is stopped.

8.   (Currently Amended) The method of ~~Claim~~ claim 1, further comprising tearing down the existing LSP when the connection is closed.

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9.   (Currently Amended) The method of ~~Claim~~ claim 1, wherein in the employing

of the first type of message, the first type of message is at least one of an RSVP

message or a Label Distribution Protocol (LDP) message.

10.   (Currently Amended) The method of ~~Claim~~ claim 1, wherein the employing of the

second type of message wherein the second type of message is a Resource Reservation

Protocol (RSVP) RESV message.

11.   (Previously Presented) A method for dynamically modifying resources for a label

switched path in a network, the method comprising:

   identifying a connection, wherein the connection includes one or more flows of

packets that has an associated resource requirement;

   determining resources for the one or more flows of packets associated with the

connection;

   establishing the label switched path, wherein a first label is associated with the

label switched path and the packets of the one or more flows of packets associated

with the connection;

   reserving resources along the label switched path for the one or more flows of

packets associated with the connection by sending a first message that contains the first

label along the label switched path that reserve the resources;

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forwarding the one or more flows of packets associated with the connection along the label switched path;

determining whether a change of the resources requirement has occurred; and

when a change of the resource requirement has occurred, modifying the resources reserved along the label switched path by sending a second message that contains the first label, wherein the second massage alters the resources reserved while avoiding establishing a new label switched path, whereby processing is minimized;

operating within one of an enhanced Multi-Protocol Label Switching portion of the network and a non-enhanced Multi-Protocol Label Switching portion of the network, wherein the network is a heterogeneous network;

when a change in resource requirement has occurred, tearing down the label switched path for the non-enhanced Multi-Protocol Label Switching portion of the network; and

establishing a new label switched path for the non-enhanced Multi-Protocol Label Switching portion of the network.

12.   (Cancelled)

13.   (Currently Amended) The method of Claim claim 11, wherein reserving resources further comprises ensuring the resource reservation along the label switched path by

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configuring the second message with the first label such that the second message follows the label switched path.

14.   (Currently Amended) The method of ~~Claim~~ claim 11, wherein the second message includes a second label, the second label including a different value in an extra bit (EXP) field to differentiate the second label from the first label.

15.   (Currently Amended) A router for forwarding packets to a final destination over a Multi-Protocol Label Switching (MPLS) network, comprising:

a transceiver ~~for receiving and transmitting~~configured to receive and transmit each packet of one or more flows of packets from a source to a destination;

a labeler ~~for labeling~~configured to label each packet with a label according to a forwarding equivalence class (FEC) that corresponds to the label, wherein the forwarding equivalence class (FEC) is based on a group of packets forwarded in a same class or manner and wherein the labeler examines the label of the received packet to identify data included in the received packet;

a pathmaker ~~for assisting~~configured to assist in establishing a label switched path along which each packet is forwarded between an ingress router and an egress router of an enhanced MultiProtocol Label Switching (EMPLS) network, wherein the label switched path corresponds to the label of each packet;

a reserver ~~for assisting~~ configured to assist in reserving resources along the label

switched path, wherein the reserver further assists in dynamically modifying resources

reserved along the label switched path while avoiding establishing a new label switched

path, and configured to assist in using aggregated resource reservation protocol to reserve

resources along the label switched path for packets of different flows that correspond to

the same forwarding equivalence class; and

a scheduler ~~that~~ configured to forward ~~forwards~~ each received packet along the

label switched path towards the egress router, wherein the egress router removes the

label and forwards each packet.

16.   (Currently Amended) The router of ~~Claim~~ claim 15, wherein the pathmaker and

reserver operate independently from one another while maintaining a common

association according to the label.

17.   (Currently Amended) The router of ~~Claim~~ claim 15, further comprising a label

information base that stores a list of labels and a mapping of a relationship between each

label and forwarding equivalence class (FEC).

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20.   (Currently Amended) The router of ~~Claim~~ claim 15, wherein the reserver assists

in using RSVP (Resource Reservation Protocol) to reserve resources along the label

switched path for packets of the same flow that correspond to the same FEC.

21.   (Currently Amended) The router of ~~Claim~~ claim 15, wherein the reserver assists

in transmitting a message to reserve the resources along the label switched path, wherein

the message includes the label.

22.   (Cancelled)

23.   (Currently Amended) A router for forwarding packets to a final destination over a

Multi-Protocol Label Switching (MPLS) network, comprising:

        a transceiver configured to receive and transmit each packet of one or more flows

of packets from a source to a destination:

        a labeler configured to label each packet with a label according to a forwarding

equivalence class (FEC) that corresponds to the label, wherein the forwarding

equivalence class (FEC) is based on a group of packets forwarded in a same class or

manner and wherein the labeler examines the label of the received packet to identify

data included in the received packet:

        a pathmaker configured to assist in establishing a label switched path along

which each packet is forwarded between an ingress router and an egress router of an

enhanced MultiProtocol Label Switching (EMPLS) network, wherein the label

switched path corresponds to the label of each packet;

a reserver configured to assist in reserving resources along the label switched path,

wherein the reserver further assists in dynamically modifying resources reserved along the

label switched path while avoiding establishing a new label switched path; and

a scheduler configured to forward each received packet along the label switched

path towards the egress router, wherein the egress router removes the label and forwards

each packet. The router of Claim 22, wherein the label is a first label and the reserver

assists in transmitting a message for reserving resource that includes a second label such

that the message follows the label switched path but is discerned from packets containing

the first label, and wherein the second label includes a different value in an extra bit

(EXP) field to differentiate the second label from the first label.

24.   (Currently Amended) The router of Claim claim 15, wherein the transceiver,

labeler, pathmaker, reserver, and scheduler are enabled to operate as an ingress enhanced

label switching router (ELSR), an intermediate enhanced label switching router (ELSR),

and an egress enhanced label switching router (ELSR).

25.   (Previously Presented) A method for reserving resources for at least one flow of

packets on a Multi-Protocol Label Switching (MPLS) based path in a network, the

method comprising:

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identifying at least one flow of packets from a connection to a destination,

wherein at least one flow of packets is associated with a required resource for forwarding

each packet in at least one flow towards the destination over the network;

employing a first type of message to establish a Label Switching Path (LSP) in the

network for at least one flow from the connection towards the destination, wherein the

LSP is established from an ingress router to an egress router in the network;

employing a second type of message to reserve the required resource at each

router along the LSP for at least one flow of packets from the connection;

when a new resource is required for at least one flow of packets from the

connection, using the second type of message to reserve the newly required resource at

each router that employs an enhanced MPLS (EMPLS) protocol and is disposed along

the existing LSP; and

establishing a new path by the first type of message for that portion of the existing

LSP that includes a router that employs an MPLS protocol, instead of a router that

employs the EMPLS protocol.

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